

# SFP-10G-DWDM

## 10G SFP+ 100GHz C-band DWDM Family

### DESCRIPTION

The Fiberworks DWDM SFP+ series single mode transceivers are small form factor pluggable modules for bi-directional serial optical data communications such as 10GBASE Ethernet. The modules are compliant to the SFP+ MSA and are hot pluggable. Digital diagnostic functions are available via an I2C serial bus specified in the SFP MSA SFF-8472. The modules meet the requirements of the IEEE 802.3 10GBASE-LR/ER/ZR Ethernet standard and are suitable for interconnections in 10G Ethernet environments.

The transceivers are available with wavelengths from 1528.77 nm (196.1 THz) to 1563.86 nm (191.7 THz) with 100 GHz increments. Versions for 40 and 80 km transmission are available as well as a 100 km version for chosen wavelengths.

The DWDM SFP+ series are compliant with SFP+ Multi-Source Agreement (MSA) specifications.

### APPLICATIONS

- 10GBASE-LR/ER/ZR
- Sonet/SDH STM-64
- OTN/G.709 OTU-2
- 10G Fibre Channel
- DWDM Systems

### FEATURES

- Up to 100 km transmission
- Hot-Pluggable SFP footprint
- Duplex LC interface for fiber pair operation
- Small Form-Factor Pluggable (SFP) MSA compatible
- 45 DWDM wavelengths up to 80km ( $\lambda$ ): 1528,77 nm to 1563.86 nm
- 29 DWDM wavelengths up to 100km ( $\lambda$ ): 1528,77 nm to 1550.92 nm
- SFF-8472 Digital Diagnostic Function
- Operating Case Temperature: Standard: 0°C to 70°C



**FIBERWORKS**

### LASER SAFETY

This transceiver is a Class 1 laser product. It complies with IEC-60825 and FDA 21 CFR 1040.10 and 1040.11. The transceiver must be operated within the specified temperature and voltage limits. The optical ports of the module need to be terminated with an optical connector or a dust plug.

### OPTICAL PARAMETERS

Part no.	Fiber type	Wavelength [nm]	Opt. Output Power [dBm]	Opt. Receiver Sensitivity [dBm]	Power Budget [dB]
SFP-10G-LR40-Dxxxx	SM	DWDM C-band	-1 to -3	-16 to -1	15
SFP-10G-LR80-Dxxxx	SM	DWDM C-band	0 to 4	-23 to -7	23
SFP-10G-L100-Dxxxx	SM	DWDM C-band	2 to 5	-24 to -7	26

- Center Wavelength Tolerance: +/- 0.1 nm
- Chromatic Dispersion Tolerance: Maximum 800 ps/nm (SFP-10G-LR40-Dxxxx)  
Maximum 1600 ps/nm (SFP-10G-LR80-Dxxxx / SFP-10G-L100-Dxxxx)
- OSNR: 27 dB

**ORDERING INFORMATION**

Part no.	Description
SFP-10G-LR40-Dxxxx	SFP+, 9,5-11,1 Gbps, SM, DDM, DWDM C-band, 15dB, 40km
SFP-10G-LR80-Dxxxx	SFP+, 9,5-11,1 Gbps, SM, DDM, DWDM C-band, 23dB, 80km
SFP-10G-L100-Dxxxx	SFP+, 9,5-11,1 Gbps, SM, DDM, DWDM C-band, 26dB, 100km

Fiberworks part no.	Wavelength [nm]	Frequency [THz]
-D9170-	1563.86	191.70
-D9180-	1563.05	191.80
-D9190-	1562.23	191.90
-D9200-	1561.42	192.00
-D9210-	1560.61	192.10
-D9220-	1559.79	192.20
-D9230-	1558.98	192.30
-D9240-	1558.17	192.40
-D9250-	1557.36	192.50
-D9260-	1556.55	192.60
-D9270-	1555.75	192.70
-D9280-	1554.94	192.80
-D9290-	1554.13	192.90
-D9300-	1553.33	193.00
-D9310-	1552.52	193.10

Fiberworks part no.	Wavelength [nm]	Frequency [THz]
-D9320-	1551.72	193.20
-D9330-	1550.92	193.30
-D9340-	1550.12	193.40
-D9350-	1549.32	193.50
-D9360-	1548.51	193.60
-D9370-	1547.72	193.70
-D9380-	1546.92	193.80
-D9390-	1546.12	193.90
-D9400-	1545.32	194.00
-D9410-	1544.53	194.10
-D9420-	1543.73	194.20
-D9430-	1542.94	194.30
-D9440-	1542.14	194.40
-D9450-	1541.35	194.50
-D9460-	1540.56	194.60

Fiberworks part no.	Wavelength [nm]	Frequency [THz]
-D9470-	1539.77	194.70
-D9480-	1538.98	194.80
-D9490-	1538.19	194.90
-D9500-	1537.40	195.00
-D9510-	1536.61	195.10
-D9520-	1535.82	195.20
-D9530-	1535.04	195.30
-D9540-	1534.25	195.40
-D9550-	1533.47	195.50
-D9560-	1532.68	195.60
-D9570-	1531.90	195.70
-D9580-	1531.12	195.80
-D9590-	1530.33	195.90
-D9600-	1529.55	196.00
-D9610-	1528.77	196.10